Blue

Dart Aerospace Ltd.

Date: Thursday, 16/08/2007 3:13:53 PM
User: Linda Lacelle

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	**Drawing Name**	: 206L AFT X-TUBE
Job Number	: 34051		
Estimate Number	: 10973		
P.O. Number	:	**Part Number**	: D206667203 BL
This Issue	: 16/08/2007 **S.O. No.** :	**Drawing Number**	: D206-667-243 REVB
Prsht Rev.	: NC	**Project Number**	: N/A
First Issue	: 16/08/2007 **Type** : LANDING GEAR	**Drawing Revision**	: B
Previous Run	: 34050	**Material**	:
Written By	:	**Due Date**	: 15/09/2007 **Qty:** 1 **Um:** Each
Checked & Approved By	:		
Comment	: Est Rev:F 05.09.01 Add holes for compatibility with Bell Skidtubes KJ/JLM		

Additional Product

Job Number:

Seq. #:	**Machine Or Operation:**	**Description :**
1.0	DC	DOCUMENT CONTROL

07.08.30

Comment: DOCUMENT CONTROL
Photocopy bluefile and create labels as per PPP D206-667-203 CHG002

2.0	D6004115	Crosstube material

Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
Pick:
Qty Part number Description Batch
1 D6004-115 Crosstube 637114
Check OD = 2.500"; ID = 1.800"

S.F. 07/08/26

3.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE

Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA089

2-Turn first side as per Folio FA089

3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-243.

S.F. 07/08/26

4.0	QC1	INSPECT ALL DIM TO DIM SHEET

Comment: INSPECT ALL DIM TO DIM SHEET

S.F. 07/08/26

Form: rprocess

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D206-667-203 BL **PAR #:** N/A **Fault Category:** Prod / Machine Parts **NCR:** (Yes) No **DQA:** [signature] **Date:** 07/10/04

QA: N/C Closed: [signature] **Date:** 07.10.04

NCR: 34051		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector
07/08/25	3.0	Coffre on one side is to short from .167". The cote was 4.270. To202 was set badly for the first side	QS1012	Modify Tube as per attached E-mail from DS.	[signature] 07/08/25	07-10-03	QS1012	07-10-03
↓	↓	R.C. operator error	QS1012					
		Set Tools 0202 bad						

NOTE: Date & initial all entries

Date: Thursday, 16/08/2007 3:13:53 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services
Drawing Name: 206L AFT X-TUBE

Job Number: 34051
Part Number: D206667203

Job Number:

Seq. #:	Machine Or Operation:	Description :
5.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE

Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA089

2-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-243.

3-Remove sand and plugs

4-Scribe part # and batch # using vibrating stylus as per Dwg D206-667-243
Inside of Cuff(Donot engrave on outside of tube)

SP 07/05/26

Seq. #:	Machine Or Operation:	Description :
6.0	QC1	INSPECT ALL DIM TO DIM SHEET

Comment: INSPECT ALL DIM TO DIM SHEET

SP 07/28/26

Seq. #:	Machine Or Operation:	Description :
7.0	QC8	SECOND CHECK

Comment: SECOND CHECK

[illegible] 07-09-20

Seq. #:	Machine Or Operation:	Description :
8.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1

Comment: LANDING GEAR RESOURCE 1

1-Polish entire outside surface of crosstube

JD 7-9-20

Seq. #:	Machine Or Operation:	Description :
9.0	QC5	INSPECT WORK TO CURRENT STEP

Comment: INSPECT WORK TO CURRENT STEP

G 07/09/20

Seq. #:	Machine Or Operation:	Description :
10.0	HAND FINISHING1	HAND FINISHING RESOURCE #1

Comment: HAND FINISHING RESOURCE #1
Chemical Conversion Coat as per QSI 005 4.1

EL/SR 7-9-20

Form: rprocess

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** __________

QA: N/C Closed: _____ **Date:** __________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)								
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 16/08/2007 3:13:53 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services | **Drawing Name:** 206L AFT X-TUBE

Job Number: 34051 | **Part Number:** D206667203

Job Number:

Seq. #:	Machine Or Operation:	Description :
11.0	BENDING	BENDING MACHINE

Comment: BENDING MACHINE
Bend tube as per Dwg D206-667-243 using CNC bender program 206L-AF and Folio FT____ FL 7-9-20

Seq. #:	Machine Or Operation:	Description :
12.0	QC15	DIMENSIONAL CHECK OF X-TUBES

7-09-20

Comment: DIMENSIONAL CHECK OF X-TUBES

Seq. #:	Machine Or Operation:	Description :
13.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1

Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-243. Drill all (3) top holes.

2-Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-243
Check dimensions between holes on all four sides.

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8583 & DT8584 as per Dwg D206-667-243. Drill only the top (2) holes.

5-Drill & ream the top (2) holes to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-243

6-Drill Fwd rivet holes using drill Jig DT8789FWD as per Dwg D206-667-143.Note: Fwd side has 3x top holes.

7-Drill Aft rivet holes using drill Jig DT8789 as per Dwg D206-667-243.

8-C'sink holes as per Dwg D206-667-243.

9-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-243

SR 7-9-25
JD 7-9-25

Seq. #:	Machine Or Operation:	Description :
14.0	HAND FINISHING1	HAND FINISHING RESOURCE #1

Comment: HAND FINISHING RESOURCE #1
Chemical Conversion Coat as per QSI 005 4.1 JD 7-9-15

Form: rprocess

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** _______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevD

Date: Thursday, 16/08/2007 3:13:53 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services **Drawing Name:** 206L AFT X-TUBE

Job Number: 34051 **Part Number:** D206667203

Job Number:

Seq. #:	Machine Or Operation:	Description :
15.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
	Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION En 07/09/26	
16.0	QC5	INSPECT WORK TO CURRENT STEP
	checked all holes **Comment:** INSPECT WORK TO CURRENT STEP En 07/09/26	
17.0	OUTSIDE SERV.10	OUTSIDE SERVICES -LG
	Comment: Sub-Contracting OUTSIDE SERVICES Liquid Penetrant Inspection as per QSI 038Or Issue P/O: 4701 CL 07/09/27 (I) LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	
18.0	PACKAGING 1	PACKAGING RESOURCE #1
	Comment: PACKAGING RESOURCE #1 Inspect for transit damage Ensure copy of NDT results attached to work order. CL 07/9/27 (I)	
19.0	QC6	DIMENSIONAL CHECK
	Comment: Inspect for damage & ensure results are as per Dwg D206-667-103 En 07/09/27	
20.0	SPRAY PAINTING	SPRAY PAINTING
	Comment: SPRAY PAINTING 1-Mask Threaded holes ET 07-09-28 2-Prime inside and outside crosstube as per QSI 005 4.2 20.A 3-Paint outside crosstube with White Imron as per QSI 005 4.2 issue P/O to atelier Debas ... 4708 CL 07/09/28	
21.0	QC14	INSPECT SPRAY PAINT
	Comment: Inspect Spray Paint Wrap in plastic bag to protect from scratches ML 07 10 01 (I)	

 Form: rprocess

20.b rec'd + inspect for transit Damage CL 07/10/01 (I)

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 16/08/2007 3:13:53 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services **Drawing Name:** 206L AFT X-TUBE

Job Number: 34051 **Part Number:** D206667203

Job Number:

Seq. #:	Machine Or Operation:	Description :
22.0	D2873045	Nut Plate Assembly

Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Pick:
Qty Part number Description Batch
2 D2873-045 Nut Plate 32777 RT 07-10-03

23.0	D2873043	Nut Plate Assembly

Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Pick:
Qty Part number Description Batch
2 D2873-043 Nut Plate 33422 RT 07-10-03

24.0	MS20601AD4W10	RIVET

Comment: Qty.: 14.0000 Each(s)/Unit Total : 14.0000 Each(s)
Pick:
Qty Part number Description Batch
14 MS20601AD4W10 Rivet 105057 RT 07-10-03

25.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1

Comment: LANDING GEAR RESOURCE 1

1-Install nut plates as per Dwg D206-667-243. RT 07-10-03

26.0	D2856400	Abrasion Strip

Comment: Qty.: 1.3525 f(s)/Unit Total : 1.3525 f(s)
Pick:
Qty Part number Description Batch
2 D2856-400(Cut to 7.73") Abrasion Strip 34293 ml 07 10 01

27.0	D28921	Support

Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Pick:
Qty Part number Description Batch
2 D2892-1 Support 32374 ml 07 10 01

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ________________ **PAR #:** ______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** ________

QA: N/C Closed: _____ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services **Drawing Name:** 206L AFT X-TUBE

Job Number: 34051 **Part Number:** D206667203

Job Number:

Seq. #:	Machine Or Operation:	Description :
28.0	MS2192022	Clamp(per MIL-DTL-8783C)

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Pick:
Qty Part number Description Batch
4 MS21920-22 Clamp 1050b6 ml 07 10 01

Seq. #:	Machine Or Operation:	Description :
29.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1

Comment: LANDING GEAR RESOURCE 1

1-Install abrasion strips as per QSI 035 using DT8580. .Note: (3) top holes should be facing up.

2-Install supports and clamps as per Dwg D206-667-243. Torque clamps to 80-100 in lb

ml 07 10 01

Seq. #:	Machine Or Operation:	Description :
30.0	QC5	INSPECT WORK TO CURRENT STEP

Comment: INSPECT WORK TO CURRENT STEP Er 07/10/03

Seq. #:	Machine Or Operation:	Description :
31.0	PACKAGING 1	PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1
Pick Packing Kit

Seq. #:	Machine Or Operation:	Description :
32.0	AN534A	Bolt

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Bolt
Batch: M105408

Seq. #:	Machine Or Operation:	Description :
33.0	MS21042L5	Nut

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Nut
Batch: M104812

07/10/03

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 16/08/2007 3:13:53 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services **Drawing Name:** 206L AFT X-TUBE

Job Number: 34051 **Part Number:** D206667203 BC

Job Number:

Seq. #:	Machine Or Operation:	Description :
34.0	AN510A	Bolt

Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick:Packing Kit
Qty Part number Description Batch
10 AN5-10A Bolt M105433

Seq. #:	Machine Or Operation:	Description :
35.0	AN532A	Bolt

Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)
Pick:Packing Kit
Qty Part number Description Batch
4 AN5-32A Bolt M104427

Seq. #:	Machine Or Operation:	Description :
36.0	AN960JD516	Washer

Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)
Pick:Packing Kit
Qty Part number Description Batch
18 AN960JD516 Washer M104156

07/10/03

Seq. #:	Machine Or Operation:	Description :
37.0	QC4	INSPECT 100% KITS FOR COMPLETENESS

Comment: INSPECT 100% KITS FOR COMPLETENESS 07/10/03

Seq. #:	Machine Or Operation:	Description :
38.0	PACKAGING 1	PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1
Identify and pack for shipping as per PPP D206-667-203
Location:__________
PPP Rev: C 07/10/03

Seq. #:	Machine Or Operation:	Description :
39.0	QC21	FINAL INSPECTION/W/O RELEASE

Comment: FINAL INSPECTION/W/O RELEASE 07.10.03

Job Completion

U 07-003

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** _________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED DS	APPROVED DS	DRAWING NO. D206-667-243 REV. B SHEET 1 OF 3
DATE 05.07.26		TITLE CROSSTUBE ASS'Y (206L HIGH AFT) SCALE NTS

A	00.11.17	NEW ISSUE
B	05.07.26	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKIDTUBES

RELEASED 05.07.26

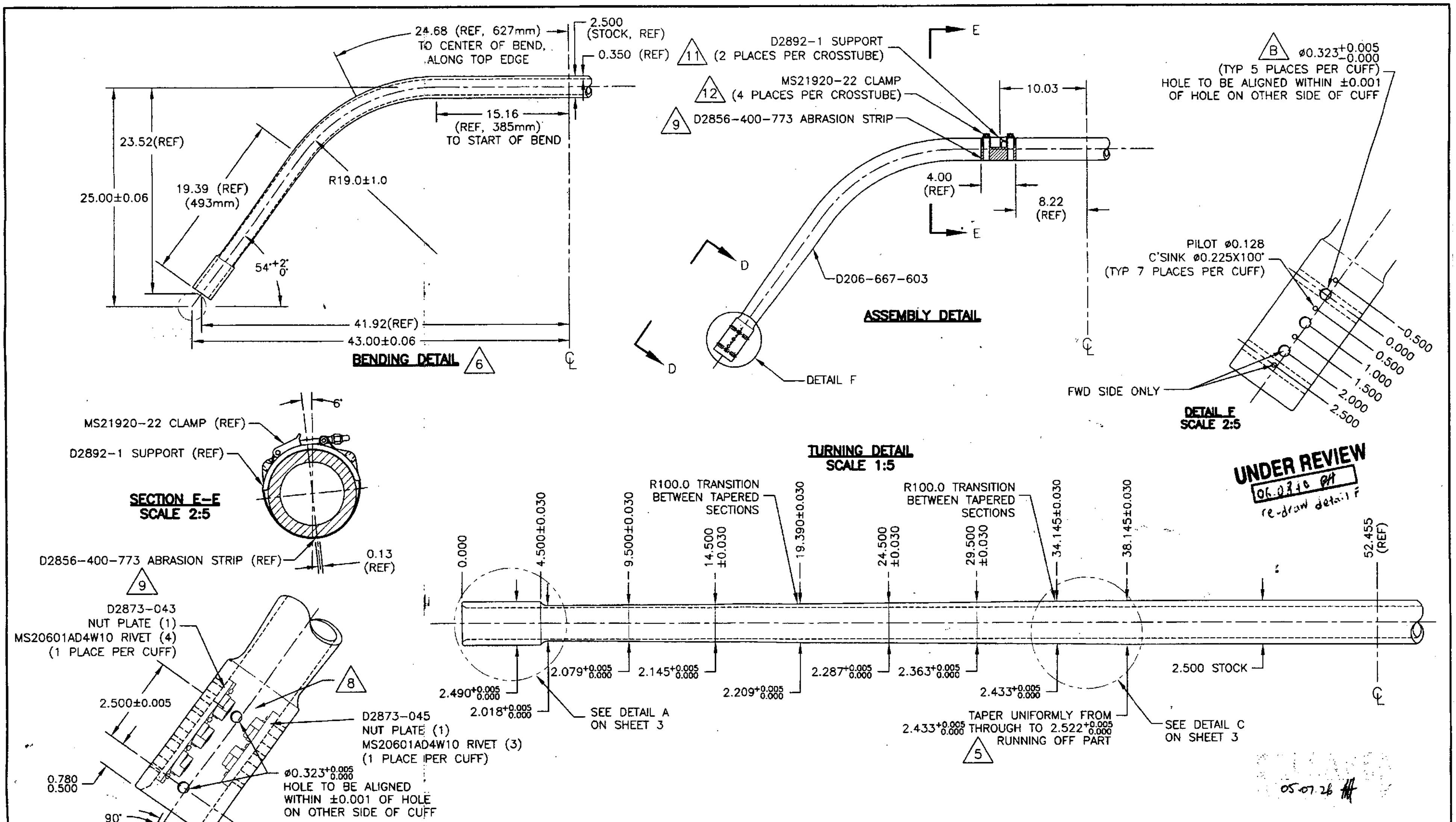
UNDER REVIEW 06.08.10 re-draw detail F

Qty	Part Number	Description
X	D206-667-243	CROSSTUBE ASSEMBLY
1	D6004-115	CROSSTUBE
2	D2856-400-773	ABRASION STRIP
2	D2873-043	NUT PLATE
2	D2873-045	NUT PLATE
2	D2892-1	SUPPORT
14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
4	MS21920-22	CLAMP

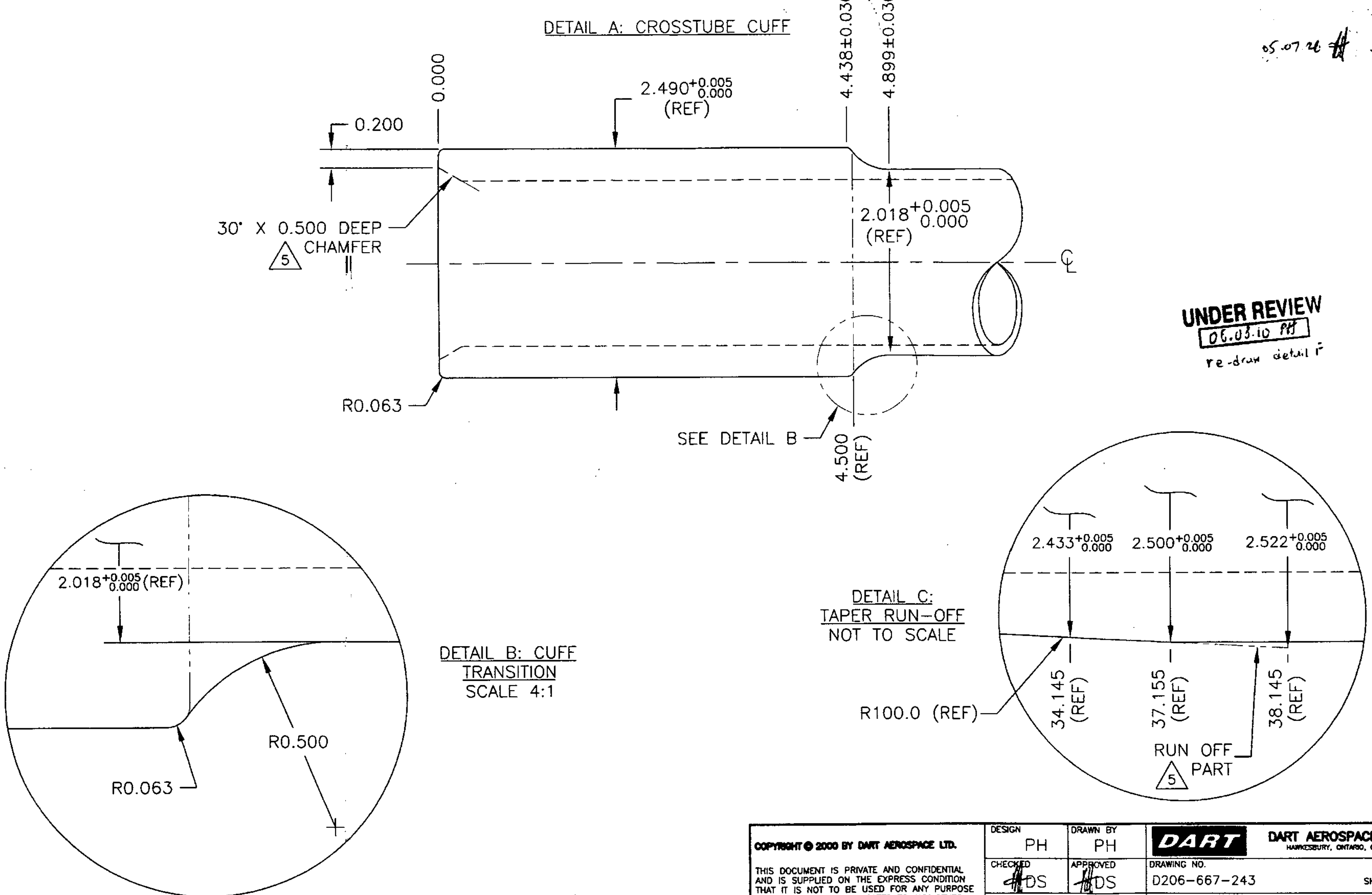
W/O 34051

GENERAL NOTES:

1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2) MATERIAL: MANUFACTURED FROM D6004-115
   FINISHED LENGTH = 104.91±0.020
3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
   PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
   PAINT OUTSIDE PER DART QSI 005 4.2
4) PART IS SYMMETRIC ABOUT CENTERLINE.
5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALY, TRANSITION SHOULD BE SMOOTH.
6) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
9) INSTALL D2856-400-773 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2892-1 SUPPORT, PER QSI 035.
10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
11) IT IS OPTIONAL TO SEAL EDGES OF SUPPORTS AND ABRASION STRIP USING SIKAFLEX-241/291 SEALANT.
12) TORQUE CLAMPS 80 TO 100 IN-LB.



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THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	CHECKED DS	APPROVED DS	DRAWING NO. D206-667-243 — REV. B — SHEET 2 OF 3
	DATE 05.07.26		TITLE CROSSTUBE ASS'Y (206L HIGH AFT) — SCALE 1:10



05.07.26

UNDER REVIEW 06.03.10 PH
re-draw detail F

DESIGN	DRAWN BY	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA	
PH	PH		
CHECKED	APPROVED	DRAWING NO. D206-667-243	REV. B SHEET 3 OF 3
DS	DS		
DATE 05.07.26		TITLE CROSSTUBE ASS'Y (206L HIGH AFT)	SCALE 1:1

7,075

9,012

DART AEROSPACE LTD	Work Order:	34051
Description: Crosstube Assembly	**Part Number:**	**D206-667-243**
Inspection Dwg: D206-667-243 **Rev:** C		**Page 1 of 1**

FIRST ARTICLE INSPECTION CHECKLIST

[X] **First Article** [ ] **Prototype**

	Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.490	+0.005/-0.000	2.492	✓			
	2.018	+0.005/-0.000	2.025	2.027	2.023		+0.002
	2.079 2.091	+0.005/-0.000	2.085	✓	2.084		2.091" 07.09.19
	2.145	+0.005/-0.000	2.157	✓	2.15		+0.007
	2.209 2.258	+0.005/-0.000	2.222	✓	2.214	[illegible]	2.222" 07.09.19
	2.287	+0.005/-0.000	2.300	✓	2.292		+0.008
	2.363	+0.005/-0.000	2.375	✓	2.368		+0.007
	2.433	+0.005/-0.000	2.445	✓	2.438		+0.007
	0.200	+/-0.010	.200	✓			
	0.500 x 30°	+/-0.010	.500	✓			
	R0.063	+/-0.010	.063	✓			
	R0.500	+/-0.010	.500				
	4.438	+/-0.030	4.270		✓		-0.168
SIDE B	104.91	+/-0.020	104.91				
	2.490	+0.005/-0.000	2.492				
	2.018	+0.005/-0.000	2.020	2.022	(2.023)		+0.002
	2.079	+0.005/-0.000	2.081	2.083	(2.084)		
	2.145	+0.005/-0.000	2.147	2.149	(2.15)		
	2.209	+0.005/-0.000	2.211	2.213	(2.214)		
	2.287	+0.005/-0.000	2.289	2.289	(2.292)		+0.002
	2.363	+0.005/-0.000	2.365	2.365	(2.368)		
	2.433	+0.005/-0.000	2.435	2.437	(2.438)		
	0.200	+/-0.010	200				
	0.500 x 30°	+/-0.010	.500				
	R0.063	+/-0.010	.063				
	R0.500	+/-0.010	.500				
	4.438	+/-0.030	4.437				

Measured by:	[signature]
Date:	07/08/25

Audited by:	[signature]
Date:	07-09-20

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.09.01	New Issue (P/O D206-667-203)	KJ/JLM	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

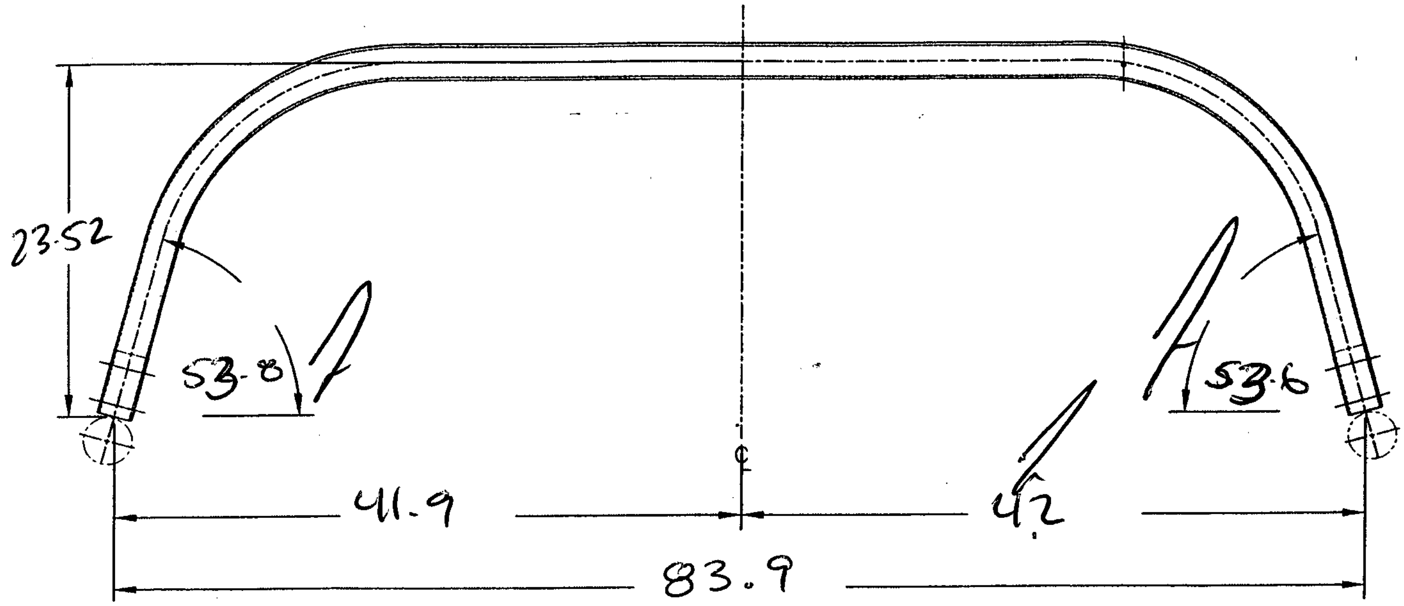
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevD

DART AEROSPACE LTD	Work Order:	34051
Description: Crosstube High Aft (206L)	**Part Number:**	**D206-667-203**
Inspection Dwg: D206-667-243 **Rev:** B		**Page 1 of 1**

Required Dimension	Min	Max
Height	23.46	23.58
1/2 Span	41.86	41.98
Angle	54	56
Total Span	83.72	83.96



Comments

QC15 Inspection	QS1 42
Date	0409-20

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** _________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Bill Beckett

From: Mike Petsche [mpetsche@dartaero.com]
Sent: September 20, 2007 8:17 AM
To: 'Beckett, Bill'
Subject: FW: NCR D205-667-243

From: Chris Provencal [mailto:cprovencal@dartaero.com]
Sent: September 19, 2007 9:43 PM
To: 'David Shepherd'
Cc: 'Petsche, Mike'
Subject: NCR D205-667-243

David,

Qty(3) D206-667-243 crosstubes. They are all from difference dates and have been waiting for disposition.

B/N 34043. Overall length is to dwg. One cuff is 4.547" long instead of 4.438" (+0.109"). The OD measurements are all within tolerance.

B/N 32142 Overall length is to dwg. One cuff is 4.386" long instead of 4.438" (-0.052"). The OD measurements are all within tolerance.

B/N 34051 Overall length is to dwg. Once cuff is 4.270" long instead of 4.438" (-0.168"). The OD measurements are all between 0.007" and 0.008" above maximum tolerance (on affected side only). The shifted taper would only increase the OD by 0.002", so the tool must have been zero'd wrong in both directions. The tube is obviously strong enough, but would be stiffer on one side. Perhaps they could run the program again, then polish out the transition.

Cosmetically, from the top of the saddle to the top of the cuff is 0.68" nominally, which would drop to 0.512" for the worst case cuff.

In my opinion, the first two are acceptable, the last one would be acceptable if re-machined within tolerance.

-Chris

ACUREN

LIQUID PENETRANT TEST REPORT

P – 1178 1

CLIENT	DART AEROSPACE	DATE	SEP 27 2007
TIME	AM ☐ PM ☐		
ATTENTION	LINDA LACELLE	ACUREN JOB NO.	188 07 1178
ADDRESS	1270 ABERDEEN ST	PO/WO NO.	
	HAWKESBURY, ONT.	WORK LOCATION	HAWKESBURY
		ACCEPTANCE STD.	ASTM 1417/QSI-038 REV./DATE 2005
PROJECT	206L AFT X TUBES,212/205 HIGH AFT X TUBE		
ITEM(S) EXAMINED	JOB #'S 31038,32142,34043,34051,34482, 32681.		

JOB DESCRIPTION

PROCEDURE NO. LT-0002 REV./DATE — TECHNIQUE NO. LT-TECH2 REV./DATE

PART NO. D206667203/D212664201 — MATERIAL 7075 ALODINED ALUM. — THICKNESS

SCOPE WET FLOURESCENT LIQUID PENETRANT INSPECTION CARRIED OUT ON 100% EXTERNAL SURFACE

TEST DETAILS

METHOD	☑ FLUORESCENT ☐ VISIBLE	☑ WATER WASH ☐ SOLVENT REMOVABLE ☐ POST EMULSIFIED	
FAMILY BRAND	MAGNAFLUX	BLACK LGHT8171	☐ OUTPUT > 1000 μ W/CM² ☐ AMBIENT < 2 fc
PENETRANTZL67	MINIMUM DWELL TIME 45 MIN.	LIGHTING EQUIP.	☐ FLASHLIGHT ☐ TROUBLELIGHT ☐ OUTPUT>100 fc @ SURFACE
PENETRANT REMOVER H2O	MINIMUM DRY TIME >10 MIN.	OTHER	CAL SEP 18 07
DEVELOPER SKDS2	MINIMUM DWELL TIME 10 MIN.	LIGHT METER S/N	CAL DUE DATE
DEVELOPER TYPE	☑ NON AQUEOUS ☐ AQUEOUS ☐ DRY		

TEST SURFACE

SURFACE CONDITION	☐ AS GROUND	☑ AS WELDED	☐ MACHINED	☐ SHOT BLASTED	☑ CLEAN BARE METAL
SURFACE TEMPERATURE	☐ < - 4°C/ 20°F	☐ - 4°C/ 20°F TO 10°C/50°F		☐ 10°C/50°F TO 52°C/125°F	☐ > 52°C/125°F

RESULTS- (☐ METRIC ☑ IMPERIAL)

FLUORESCENT LIQUID PENETRANT INSPECTION
CARRIED OUT ON 100% EXTERNAL SURFACE ON:
206L AFT X TUBES JOB#S **31038, 32142,**
34043, 34051, 34482.
212 HIGH AFT X TUBE JOB# **32681.**

RESULTS: NO INDICATON OF DEFECTS.
ITEMS ACCEPTABLE TO STANDARD.

SIGNATURES

CLIENT REPRESENTATIVE — PRINT — SIGNATURE — DTR# E 13167

TECHNICIAN (SIGNATURE): Hewett — REPORT REVIEWED BY:

NAME (PRINT): JASON HEWETT — NAME — INITIALS

1ST TECHNICIAN	2ND TECHNICIAN
CGSB LEVEL 2 SNT LEVEL	CGSB LEVEL SNT LEVEL
CGSB REG. NO 6156	CGSB REG. NO